



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/808,433 | 03/25/2004 | Bernard Paillarse | 250891US41 | 6944 |

22850 7590 09/21/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

| |
|----------|
| EXAMINER |
|----------|

COHEN, AMY R

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2859

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,433

Applicant(s)

PAILLARSE ET AL.

Examiner

Amy R. Cohen

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 9-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,9,10,12-14 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 3,11,15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 2, 14, 16, 18-20 are objected to because of the following informalities:

Claim 2, line 2 "the immobilization means" lacks antecedent basis in the claims.

Claim 14, line 2 "the immobilization means" of the support and of the mandrel lack antecedent basis in the claims

Claim 16, line 5, "stoops" should read --stops--.

Claims 18-20 when stating the dependence on a previous claim, the word "claim" should not be capitalized.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Evans et al. (U. S. Patent No. 5,505,003).

Evans et al. teaches a profile measurement process of a part involving a portable feeler device, the process comprising: calibrating the portable feeler device (Col 7, lines 19-32, the position of the reference object on the base is "known" indicating that the device has been calibrated); assembling the portable feeler device at a fixed position as compared with the part

Art Unit: 2859

(Col 7, lines 19-32); manually displacing the feeler along the profile (Col 7, lines 19-32); and automatically correcting measurement errors due to wear or deformation of the feeler, using the results of the calibration (Col 7, lines 19-32).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 9, 12, 14, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maag (U. S. Patent No. 4,166,323) in view of Bieg (U. S. Patent No. 4,976,043).

Regarding claims 1, 2, 9, 12, 14, 20: Maag discloses a measurement device (Fig. 1) configured to measure a profile of a part (4), comprising: a feeler (12); a manipulation knob (17) connected to the feeler; a support (6); a table (8) with two perpendicular movements (Col 2, lines 44-59), the table linking the support to the feeler (Fig. 1), a pair of displacement transducers situated between mobile portions of the table (Col 3, lines 13-37), the pair of displacement transducers being configured to measure displacements according to perpendicular movements (Col 3, lines 13-37); a machining mandrel (not numbered, supporting piece 4) on which the part comprising the profile is installed (Fig. 1); and means for reading and storing in a memory (25, 26, 27) the displacements measured (Col 3, lines 48-59).

Maag discloses the measurement device wherein the immobilization means of the support comprise a first pair of travel stops (ends of support 2) oriented in the same direction as the

Art Unit: 2859

feeler, the feeler being situated between the travel stops (the feeler is situated on 6 which is situated between travel stops of support 2, Fig. 1).

Maag discloses the measurement device wherein the device comprises a measurement standard bearer (1) (Fig. 1).

Maag discloses the measurement device wherein the device comprises a control for a start and a stoppage of the displacement memory storage (Col 3, lines 48-59).

Maag does not disclose the measurement device wherein the support and the mandrel are mutually movable and comprise complementary immobilization means.

Beig discloses a measurement device (Fig. 1) configured to measure a profile of a part (30) wherein the support and the mandrel are mutually movable and comprise complementary immobilization means (Fig. 1, both the support of probe 90 and the mandrel 27 are controlled by the numerical controller 60, thereby providing the “complementary immobilization means”, Col 2, lines 65-68 and Col 6, lines 14-36); wherein the device comprises a measurement standard bearer of complementary means (28) for the immobilization means of the support (Fig. 1); wherein the immobilization means of the support are respectively associated to the immobilization means of the mandrel so as to determine one invariable immobilization position of the support on the mandrel (the immobilization means are both connected to the controller 60, Col 2, lines 65-68 and Col 6, lines 14-36); wherein the feeler is configured to maintain a known direction, and the means for reading and storing is configured to compensate the displacement measurements for a wear of the feeler based on a calibration measurement and a knowledge of a portion of the feeler sliding on portions of the profile part (Col 10, lines 20-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the measurement device of Maag to have the support and mandrel mutually movable and comprise complementary immobilization means, as taught by Beig so that the entire profile of the part may be measured by moving the machine part and so that the profile of the part can be measured while it is still associated with the machining equipment that produced the part (Beig, Col 2, lines 65-68).

Regarding claims 17-19: Maag discloses a measurement device configured to measure a profile of a part, comprising: a feeler (12); a support (6) configured to support the feeler, the support being movable (Col 2, lines 60-68); a table (8) with two perpendicular movements (Col 2, lines 44-59), the table linking the support to the feeler (Fig. 1); a pair of displacement transducers disposed between the mobile portions of the table, the pair of displacement transducers being configured to measure displacements of the feeler (Col 3, lines 13-37); a mandrel (not numbered) to hold the part (4), the mandrel being configured to hold the part during a profile measurement (Fig. 1); an operation device configured to read and store in a memory the displacements measured (Col 3, lines 48-59); and means for immobilizing the support (Col 2, lines 60-68).

Maag does not disclose the measurement device comprising means for complementary immobilizing the support and the mandrel; wherein the operation device comprises means for compensating the measured displacements for an excessive manipulation force causing a deformation of the feeler; wherein the feeler is configured to maintain a known direction, and the means for reading and storing is configured to compensate the displacement measurements for a

Art Unit: 2859

wear of the feeler based on a calibration measurement and a knowledge of a portion of the feeler sliding on portions of the profile part.

Beig discloses a measurement device (Fig. 1) configured to measure a profile of a part (30) wherein the support and the mandrel are mutually movable and comprise complementary immobilization means (Fig. 1, both the support of probe 90 and the mandrel 27 are controlled by the numerical controller 60, thereby providing the “complementary immobilization means”, Col 2, lines 65-68 and Col 6, lines 14-36); wherein the operation device comprises means for compensating the measured displacements for an excessive manipulation force causing a deformation of the feeler (Col 10, lines 20-53); wherein the feeler is configured to maintain a known direction, and the means for reading and storing is configured to compensate the displacement measurements for a wear of the feeler based on a calibration measurement and a knowledge of a portion of the feeler sliding on portions of the profile part (Col 10, lines 20-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the measurement device of Maag to have the support and mandrel mutually movable and comprise complementary immobilization means, as taught by Beig so that the entire profile of the part may be measured by moving the machine part and so that the profile of the part can be measured while it is still associated with the machining equipment that produced the part (Beig, Col 2, lines 65-68).

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maag and Beig as applied to claims 1, 2, 9, 12, 14, 17-20 above, and further in view of Newton (U. S. Patent No. 4,383,369).

Maag and Beig disclose the measurement device as described above in paragraph 5.

Maag and Beig do not disclose the measurement device wherein the feeler comprises an oblique rod, and a return device of the rod between two positions at either end of a U-turn, travel stops of the rod at the two positions, and a holding means of the rod at the two positions.

Newton discloses a measurement device (10) wherein the feeler (110) comprises an oblique rod (Fig. 1), and a return device (100) of the rod between two positions at either end of a U-turn, travel stops (24, 26, 32) of the rod at the two positions, and a holding means of the rod at the two positions (Fig. 1 and Col 3, line 65-Col 4, line 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the measurement device of Maag and Beig to have an oblique rod, as taught by Newton, so that the oblique rod would be able to contact surfaces which are not axial or perpendicular to the feeler and so that the rod would have u-turn travel stops to ensure that it was properly aligned with a surface perpendicular to the feeler.

Allowable Subject Matter

7. Claims 3, 11, 15, 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 3, 15, and 16: The prior art of record does not disclose or suggest a measurement device wherein the immobilization means of the support comprise a pair of pins in combination with the remaining limitations of the claims.

Regarding claim 11: The prior art of record does not disclose or suggest a measurement device wherein the device comprises reference feelers associated with the first pair of travel stops in combination with the remaining limitations of the claims.

Response to Arguments

9. Applicant's arguments with respect to claims 1-12, 14-20 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's arguments, filed June 30, 2005, with respect to the rejection(s) of claim(s) 13 under Schiler have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Evans et al. as above in paragraph 3.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents disclose measurement devices LaTulippe (U. S. Patent No. 6,931,751), Nagaike et al. (U. S. Patent No. 6,758,085), Cross et al. (U. S. Patent No. 5,097,602), Herzog et al. (U. S. Patent No. 5,068,972), Shelton (U. S. Patent No. 3,840,993), Schiler (U. S. Patent No. 3,823,482), and Pagella (U. S. Patent No. 3,594,908).


Art Unit: 2859

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R. Cohen whose telephone number is (571) 272-2238. The examiner can normally be reached on 8 am - 5 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARC
September 19, 2005



Diego Gutierrez
Supervisory Examiner
Tech Center 2800